

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/031136 A1

(51) International Patent Classification⁷: **F02C 3/24, 3/22, 7/22, F01K 23/10**

(21) International Application Number:
PCT/AU2004/001339

(22) International Filing Date:
29 September 2004 (29.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003905325 30 September 2003 (30.09.2003) AU

(71) Applicant (for all designated States except US): **BHP BILLITON INNOVATION PTY LTD [AU/AU]**; BHP Billiton Centre, 180 Lonsdale Street, Melbourne, Victoria 3000 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **NIGRO, Nello [AU/AU]**; 4 Steward Street, Burwood, Victoria 3125 (AU).

(74) Agent: **GRIFFITH HACK**; 509 St Kilda Road, Melbourne, Victoria 3004 (AU).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

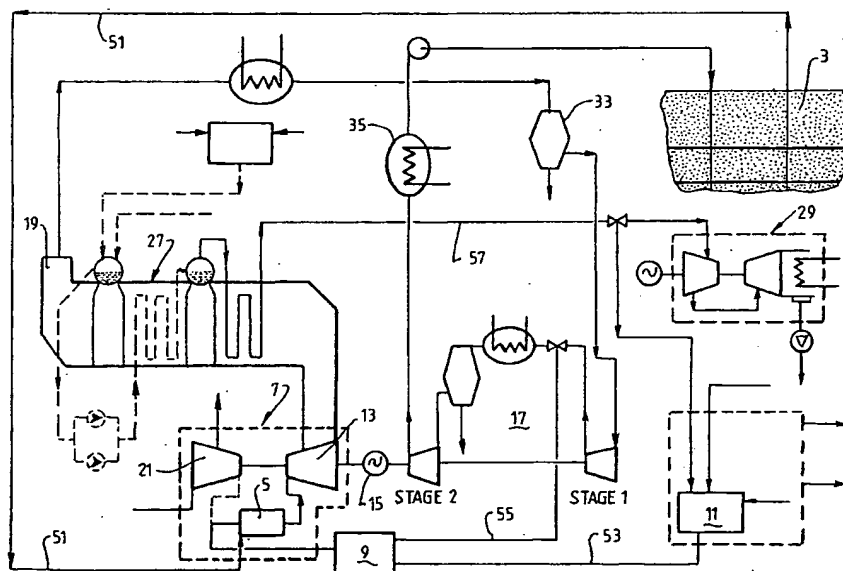
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: **POWER GENERATION**



(57) Abstract: The combustor (5) of a gas turbine (7) is supplied with coal bed methane (51), oxygen (53) and a part of the flue gas (55), predominantly CO₂, produced from the gas turbine (7) and sent through a heat recovery steam generator (27), all under pressure. The heat recovery steam generator (27) receives the hot flue gas and generates steam (57) for driving a steam turbine (29). The other part of the flue gas stream that passes through the heat recovery steam generator (27) is supplied to a suitable underground storage region (3).

WO 2005/031136 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.